What Constitutes Value in Real Estate

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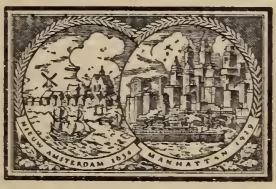
What Constitutes Value in Real Estate

An address by Philip W. Kniskern, Vice-President and General Manager, Continental Mortgage Guarantee Company, 250 Park Avenue, New York City, before the School of Civic and Business Administration of the College of the City of New York.



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What Constitutes Value in Real Estate

Real Estate forms the great backbone of the wealth of this country and city real estate, in dollars and cents, constitutes the larger portion of this division of our national wealth. Virtually every one of the 100,000,000 and more people in this country enjoy some form of ownership of, or interest in real estate and so are affected either directly or indirectly by real estate values.

It has only been in the last, comparatively few years that there has been any real development in the valuation of real estate as a science. In recent years an increasing amount of study has been and is being given to the development and determination of theories, principles and methods of evaluating real estate, with the result that it is at present rapidly approaching the status of a science, and a profession where men are giving their entire business time and thought to this work alone.

There is developing among the leaders of the industry a uniformity of thought, as well as procedure, in this work and certain fundamental principles are already generally recognized and accepted.

An appraisal of a parcel of real estate is the analysis and determination of the value of that particular holding expressed in terms of money. The appraisal of real estate can never be an exact mathematical science such as engineering or structural design but it is the development and expression of a judgment founded upon existing facts and conditions and their relationship to each other, wherein mathematical computations become a component and essential part but not the entirety.

My remarks are directed primarily to the appraisal of real property as security for mortgage loans and only incidentally to the appraisal for any other purposes. There may be a substantial difference in the value of the majority of individual holdings of real estate when they are considered from the viewpoint of collateral for loans, from the value when they are considered as the subject of any other form of real estate transaction.

Let us compare the lending of money upon real estate to the simple transaction of the commercial bank loan upon collateral. The details of this latter transaction are possibly a little more commonly understood. The two transactions are analogous, but with some essential difference.

When one borrows money at a bank, he signs a note due either upon demand or at the end of a short period of time and the collateral is placed in the hands of the bank with power to sell. The real estate note does not become due until after a period of years, three, five or even more years, and conditions may change materially in that length of time. The holder of the note can neither control these conditions nor protect himself by changing his own position in relation to them. The collateral given to the bank is of a kind that may be liquidated promptly by the lendor, and is such that he always has before him a continuous record of daily transactions in exactly the same article. To take recourse to the real estate collateral the lendor must go through a legal procedure, generally in court, to acquire title to the property. This court action takes time and after that, in most states, a further period must elapse during which the borrower has a right of redemption. Even then the lendor, now the owner with clear title, finds that days, even months, may elapse, before he finds a willing and able buyer.

The listed collateral that the banks take is subject to the hazard of violent day to day changes in value. The fluctuations extend both above and below the true investment value. The actual sale, however, may be accomplished quickly and with a minimum of effort. The values and prices of properly improved real estate fluctuate much more slowly and within a closer range than many other types of investment.

Our mortgage laws today in many respects protect the borrower to the detriment of the lendor and the lendor must apply a considerable amount of effort and expect a rather material amount of time to pass, after a default, before he may replace his investment by cash from the sale of the property to another. During this period court costs, interest, carrying charges and other expenses necessarily accumulate and must be added to the amount originally loaned to obtain the minimum sale price which will liquidate the lendor. Experience in New York City has proven that, where basic valuations and appraisal have been carefully and conservatively made, an allowance of one-third of such valuation will amply cover these charges and expenses and fully protect the lendor. There is danger in hasty, carelessly made valuations or those which reflect undue optimism but years of actual experience have proven that such loans are the very best of investments when based upon the true investment value of such properties.

So far as time will permit, I will, in what I am to say, give you some of the considerations necessary in determining this true investment value.

When the collateral is delivered to the banker for a loan, he in effect says, "this stock closed at $250 a share (the speculator's price); there are indications that certain earnings will be maintained and based on such earnings it has a real value of, say $180 per share (the investment or justified value)." He will then lend some percentage, possibly 50% or $90 per share.

The direct analogy exists in borrowing upon real estate. The speculative operator may have paid $100,000 for a given parcel of land. He may have spent $300,000 to erect a building upon that land, or a total expenditure of $400,000. His hope, upon completion, is to sell this property at $450,000 to $500,000 and so he sets $500,000 as an asking price (the speculative price). The mortgage lender must follow the same line of thought as the banker, or substantially as follows.

This property represents expenditures of $400,000. The owner is asking $500,000. From a study of the rentals obtained from similar properties and the rentals so far obtained in this property, it is evident that it has a genuine earning power of $70,000 per year gross. Its true investment value is therefore $420,000 and the safe loan upon the security thereof should not exceed $280,000.

The true investment value is based almost entirely upon the earning power of the property and whenever the judgment of the operator is incorrect as to location or type of building, as happens in many cases, the investment value may quite often be less than the actual gross expenditure in acquiring the property.

We have said that an appraisal is the determination of value. Let us consider for a moment this word "value" and what it means. Value implies money paid or to be paid for something and it will help in understanding the problem if we review the purposes that induce people to buy or hold real estate.

Value is what any person is justified in paying for a property—that is, the present worth of all of the rights to future benefit arising from ownership.

Those who purchase real estate, that is, those who make the market for real estate, fall generally into two great groups. The dividing line between these groups is not at all clear in some transactions and the same person in one transaction falls into one group while in a later transaction, into the other. The purpose that they expect to accomplish in the transaction classifies them into one or the other group.

In the first group is the speculator, who is principally interested in a comparatively quick turnover, that is, he buys with the intention of selling the same property to another at a large or small increase in price, within a short period of time. This may take the form of acquiring vacant property, erecting a building at the minimum of outlay, acquiring tenants with comparative freedom in granting concessions, all to the end of establishing a paper rent roll with the utmost speed and the minimum investment, and then, what in effect amounts to selling this rent roll, We find the speculator operating in properties in transition, that is, changing to a higher use. He may buy in anticipation of removal of elevated structures or other physical changes in the district. Generally speaking, the speculator operates with the smallest equity investment possible in any property. If, by the investment of $10,000 he can acquire a property worth $250,000 subject to several mortgages aggregating $240,000, and can turn this property in the next week for $260,000, he has made 100% on his investment. The so called "option boys" in Florida operated on this same principle.

The speculators are here today and gone tomorrow. They are gamblers and are most active in a rising market. They cannot be depended upon to make or maintain any sort of market level in any district under other than the most favorable conditions. Prices paid for properties under these circumstances are not criteria of true values and are particularly dangerous as guides to be followed.

In contrast to this group we have the true investor who seeks a permanent place for his surplus or capital funds. He seeks security of principal, fair and adequate return upon his capital and the reasonable increment of principal justified by normal growth of the community. He is careful in his purchases and takes over property only after thorough study and analysis of the conditions surrounding

the property and its present as well as probable future earning power. He is governed by the long pull prospects. He eliminates the day to day fluctuations from his considerations and protects himself against any hazard therefrom by purchasing with substantial equities.

The true investor is the backbone of the real estate market. He is always with us; always in funds; and ready to buy at a fair price. If we are to arrive at a sound permanent value, we must assume the viewpoint of this true investor and by careful study accurately determine what he is justified in paying for the given property.

In what follows, the term "justified value" will be used and by this expression is meant that amount of money which this true investor would be justified in putting into a property which would give him a fair return and adequate security for his capital, at a price proper and consistent with the amount and stability of the net income. This price must be fair as well as comparative and competitive with all other forms of investments which are available at the same time to this investor.

The one great source of data upon which to base our study and judgment of value is the so-called market as shown by recent transactions in similar and comparative properties.

I do not agree wholly with the rather common expression that the value of a property is established when a buyer willing and able to buy meets a seller willing and able to sell.

A sale does not create value. Value is created by economic and social conditions.

The sale of a piece of property does not in itself create any value for that property but the sale is merely the expression of a judgment of value.

True value is not what someone has paid or is willing to pay for a certain parcel of real estate, but it is what someone is justified in paying for that piece of real estate.

The price paid for a piece of real estate in any given transaction can be nothing more or less than the expression in terms of money of the judgment of two interested parties as to the value of that property to themselves. Any two other interests could as properly, and more often than not do, agree upon an entirely different figure for the same piece of property. Further, when two parties agree between themselves to buy and sell it does not follow necessarily that the judgment of either, nor that the combined judgment of both, even though not affected by any other extraneous matters, is infallible as to the justified value of that particular piece of property.

Whenever a property is sold or transferred there are often many elements other than the characteristics of the property itself, which enter into the transaction and influence the amount of the financial consideration, or price paid.

An example of one rather common situation will show what is in mind. An operator may have paid $10 per square foot or $75,000 for a parcel 75 x 100. By careful computation he finds that a high building built upon a plot 100 x 100 will earn upon $15.00 per square foot. He therefore needs and desires the adjacent 25 feet to fill out his plottage. The owner of this adjoining piece, having discovered the situation, holds up the buyer for a higher price and finally a deal is consummated at $20 per square foot for the 25 foot piece. The buyer, although he has paid this higher price for the small piece, knows that his entire plot-

tage, which has now become 100 x 100, has averaged him only $12.50 per square foot. The fact that $20 per square foot was paid for the small additional plottage does not establish a value of $20 per square foot either for that property itself or for other similar properties in the same location.

Conversely there are many cases where the actual price paid in a transaction is under the true value of the property. This occurs most frequently in the so-called forced sale, which may arise from the distribution of an estate, foreclosure of a lien, sale for tax purposes and many other causes. The essential element in such sales being that either the method of sale or the time available does not permit the development of sufficient general interest to produce a real competitive demand for the property. Transactions are constantly consummated both above and below true values.

Because one optimistic person pays a very high price for a particular parcel does not establish its market value at that price. However, if many people enjoy that same optimism and back their judgment with the actual investment of their money in substantial equities such expressions will in time become general enough to be accepted as a market value. Nevertheless, even with such extensive confirmation this value may yet not be a justified value. This has been clearly shown in some parts of the State of Florida, where there were great numbers of transactions at fancy prices. The prices are today very considerably under those that once prevailed and will remain so for many years to come. In some cases they will probably never return to the level that existed at one time.

When considering actual transactions we must ascertain all influences and facts bearing upon the transaction and not be misled by high prices which result from small "down" terms, equities or other similar considerations. A residential property that will bring, say, $8,000.00 when sold with a nominal down payment of $200.00 to $400.00, can, if the purchaser makes a substantial cash payment, be obtained for something like $7,000. This is equally true in business properties and the buyer offering all cash, will pay much less for the same property than will another buyer who must give back a large purchase money or junior mortgage.

Transactions which include the trade of another piece of real estate as a part of the payment must be subjected to the closest scrutiny for more likely than not both the stated price of the parcel being sold and the stated value of the parcel traded have been inflated by the parties to the transaction. Illustrating this point is the threadbare story of the man who, while driving to Florida, picked up a dog worth $100.00. His friend challenged that no dog any one would find along the side of the road could be worth that amount of money. The reply to this was "I did not think so myself at first but when I got to Miami I traded that dog for two $50.00 cats." It is always safe to be suspicious of values developed where trades are involved.

Sales in transitory sections, that is, where property is going from residential to apartment use or from residential to retail use, are often completed at a price above the present proven earning power and at a price which is the expression of the judgment of the purchaser of what the property may be able to earn if and when the higher utility is thoroughly established. Often times the rate of growth of a community is checked, or its direction of growth is changed. As a result of these and other causes it is not difficult to find examples where this higher utility value

has not arrived at the time expected, or it has not reached the level anticipated, and in some instances these speculative prices have proven to be pure bubbles with no justification of the higher prices ever having existed. So far as this potential element of the value is concerned, it is highly speculative and the maturity of the higher level is necessarily indefinite. For these reasons then, so much of the value of a parcel as represents this probable future increment, and is in excess of the actual present proven earning power of the property, is uncertain value and is, therefore, not sound or good collateral for real estate loan purposes.

The real estate market is like every other market, it has its short swings up and down reflecting day to day influences and it has its long swings on a much flatter curve reflecting the permanent changes. Let us plot a curve of the general real estate market with our verticals, dollars of value, and our horizontal ordinates time in months and years. The plotting of the general level of current transactions would be quite an irregular up and down line but a mean curve superimposed upon this first curve would be almost straight and for all of our modern active cities this mean curve would show regular and persistent upward tendency. It is a serious error to appraise values on the first curve plotted but the appraiser for mortgages should seek those values that lie on the superimposed mean curve I have mentioned. These are the true, stable investment values.

So much for this question of market value, per se.

What I have said does not mean that current transactions and sales cannot be considered. Quite the contrary is true, for in spite of these and other extraneous and confusing elements influencing market prices in individual instances, a carefully prepared consolidation of the results of a great many transactions is probably the most accurate expression of true market value.

The appraiser's work is to determine upon the market value and then to justify it. If he cannot fully support it then he must accept only so much of it as he can justify.

What we, who appraise for mortgage purposes, should then seek to determine is a justified market value. Many call this by the more expressive term "stabilized value".

This is a value which is fair to the property and which it is fairly certain the property will hold for a reasonable period in the future.

For our purpose, that is, for loan collateral, the value of a property cannot and must not be considered nor its worth determined to any particular individual. We must determine the value of the property to the average and general individual and not to any specific person.

Value is that which the average individual and typical buyer normally interested in the particular type of property is justified in paying for a piece of property.

In considering the time element we should not attempt to reach a value so low as would be necessary to make a quick and immediate sale, that is low enough to move the property without hesitation if it were "dumped" on the market, nor should we seek a value which would be so high that it might take an unreasonably long time, require considerable concession in the selling agreement to move it.

The value which we seek should be that which can be developed by fair and reasonable selling energy over a reasonably short length of time and with sufficient substantial investment in the equity so that when accomplished it will be a complete permanent sale.

In searching for this market value, we will have a few cases where there have been a sufficiently large number of transactions fully to develop a general expression of opinion of the value as outlined. However, in the great majority of assignments there will not be a sufficient number of reasonably recent transactions in exactly equivalent properties to sufficiently establish this and the greater number of appraisals must be based upon few, if any, equivalent transactions and a great many other transactions in properties which are comparable but in many ways non-equivalent. As a means of translating information as to value of various other properties to a particular property under study we have developed the land unit, that is value per square foot or per front foot and the building unit, value per cubic foot or in the simpler structures per square foot.

The actual mathematics of an appraisal consist of simple arithmetical equations, although each question includes factors which can be established only by the judgment of the appraiser. There are no rules, formulae or other means for determining these factors other than the exercise of sound judgment based upon extensive study and experience. The given quantities in our problem are a specific lot with definite location, frontage, depth, shape and square foot area. Upon this lot stands a building of definite area, story height, construction and equipment and definite rentable or usable space. We are further given the net rentable area in square feet, the actual current rent roll, and the rental history of the property.

With these factors we proceed by one method of approach to determine the income value of the property and then by a second method of approach to determine the physical value of the property. The results of these two methods of approach must be the same and must be harmonized.

My very good friend, Preston M. Nolan of Chicago, one of the most outstanding men in this profession today, has very concisely expressed this relationship between income and physical value and I am taking the liberty of quoting his words:

"No counting of bricks, or calculating of mortar, can laugh off the vital essential of earnings, nor are earnings themselves likely to stand, unsupported by sound underlying physical values.

"Anything less than an exact and provable balance between physical value of land and buildings, on the one hand, and accurately anticipated income on the other, deserves close scrutiny, and in most instances warrants suspicion and avoidance by the investor in either real estate itself or in the bonds for which it is sometimes made the unjustified excuse."

It is axiomatic that improved real estate is not bought and sold because of actual brick, mortar, steel and physical components of the building, but the desire for possession arises only to acquire the benefit of the possible present and future income which may be developed by the aggregate mass of physical components. In other words, all real estate is attractive either for the income which it will produce of for the probability of appreciation in value over the price paid. Appreciation in value occurs only from actual or potential increase in net income. Therefore, in the final analysis present and future income is the true and only basis of value. If you have ever been at a negotiation over a piece of improved real

estate, you have never heard mentioned the actual number of brick which are in the building, nor the price paid for the brick. The quality only, not the quantity of the construction is considered, that is the arrangement of the materials of construction insofar as they provide convenience, use and efficient rent producing space.

Simply stated the income method is this: The property is determined to have a gross rental *value* of $70,000 per year. This may or may not be the actual rental. From this we deduct an allowance for normal vacancies and operating expenses—leaving $42,000 as the net rental value before capital charges. This then is a net annuity whose worth is determined by its hazards and advantages. If rated as at 10% income, then $42,000 is 10% on $420,000—the income value of the property.

In computing the physical valuation, we first compute the land value. Land value units are the square foot and front foot. Given a lot 100 feet front by 100 feet deep, which our judgment values at $1,500 per front foot; that lot is worth $150,000. The building value unit is the cubic foot—sometimes the square foot is used in the simpler structures, as one story stores, industrial buildings, etc. We compute the actual volume of the building in cubic feet, front by depth by height, with deductions for courts, set backs and other irregular lines. Our judgment establishes 50c as the justified value per cubic foot for this building. Having computed the building at 540,000 cubic feet and assigned 50c per cubic foot, our building value is $270,000, which when added to the land value, gives $420,000 total, which conforms to and agrees with the income value previously found.

I have already referred to the fact that the actual price paid for a piece of real estate is not necessarily an expression of the true value. I call attention to the fact that in computing the value of this building, I have stated that it had a *justified cubic value* of 50c. I used the expression "cubic value" and not cubic cost, intentionally. Many buildings cost more to erect than they can develop as true value and similarly other buildings cost less to erect than they will develop in value when completed.

You will note that both of these methods are apparently simple arithmetical computations. However, each equation carries a factor which is determined purely by judgment. There, in the physical method, are the unit value for land and the unit value for building. In the income method they are the gross rental units, the average operating expenses and the capitalization rate for net income. The results obtained from such computations are therefore determined by judgment in establishing these variable factors. This judgment can only be developed by years of training, study, experience and a mass of statistical data. The whole profession and science of appraising focuses upon these critical units—namely, the land value unit, building value unit, rental value, operating costs and capitalization rate.

In reaching each of these valuations, the thoughts of the appraiser follow different channels and recognize different conditions, so that it is fair to assume that if, after following both of these two methods, after separate operations, the final results are the same, then, not only the accuracy of the mathematics, but the accuracy of the various judgments, has been proven. If the results are not the same, there has been an error somewhere along the line and the work must be reviewed until the error is discovered and the results harmonized.

Our income value is the true criterion and we must study the characteristics of the property, its interior arrangement, its location, transportation facilities, accessibility and the like in order to determine their effect upon its rental probability.

The first problem in an income valuation is to determine the gross annual rental value. Each building has its actual gross rent from tenants and leases—it also has its rental value. These may or may not be the same figure. The mere fact that a given space in a building is let for a stated rent does not necessarily establish the rental value of that space at that rent, although it is of course a rather definite indication. For every rentable space in a building there is a definite rent which that space is entitled to earn. We must find this figure.

Rental value depends upon the use for which the building is designed, the efficiency with which it serves its purpose, and the public demand or necessity for that type of use in the particular spot at which the building is located. The rental value of any store space is that rent which a business, both logical to the location and available as a tenant, can pay out of gross business and still leave a continuous and attractive residue of profit to the tenant after paying all reasonable operating expenses, including the rent.

The rent that any given business can pay varies directly with its gross sales. A great deal of study has been given to this and there are now available quite reliable and definite sources of data for the various types of retail trade showing the rent in cents per year which can profitably be paid out of each $1.00 of gross sales. Furthermore, we have data as to the average, gross business in dollars per square foot of net rentable area which certain types of retail businesses can do in certain localities. This later data varies considerably due partly to differences in locations and it has not yet been developed to the same accuracy as that of rent per dollar of gross sales.

I cannot take your time now to exhaust this part of the subject. Suffice it to say that we must study the number of people who are available to the location, either because they live nearby, or find it accessible by public transportation or auto. How many now normally pass the location or can be drawn to it, and of this number what proportion are actual or potential buyers. Remember, in some instances, crowds and heavy traffic contain few if any buyers. In others the percentage of buyers is very high.

A study of the density, general character, wealth and the like, of the residential community adjacent or accessible to a store, a study of the success of existing adjacent stores and the rents being paid, the profit experience above these rents, observation of the trading public now passing the location and general data of other but comparable locations will be helpful guides in establishing this rental value.

Whenever rent absorbs so great a portion of the income of a business that there is not an attractive profit residue, that business cannot long survive in that location. When the business operation fails the rent stops. Those rents that impose too great a burden upon the tenants jeopardize the permanency of those tenants and give a fluctuating and highly uncertain income to the property. The rental value, then, assigned to any space must be such that it will, with certainty, permit the profitable

continuance of such business as may be suited to the location and building.

As a matter of fact, in a great many established retail sections, we do not have to carry our studies back so far as has been outlined but we can accurately establish a rental value from a record of rents being paid by successful tenants in the same and comparable locations and spaces.

For apartments and other residential properties rental values are determined largely by this latter method. We study carefully the accommodations offered to tenants by the building under consideration and then from knowledge of the rental history of similar buildings in comparable locations, we assign a rental to each apartment according to its size and equipment. Apartment rentals are substantially influenced by the psychology of people as individuals and as a group, by individual likes and dislikes, by personal incomes and wealth, by social aspirations, by environment, by exposure, by outlook, by transportation, by motor highways and the like. This could be a long tedious list if I should endeavor to make it complete.

In any modern community the number of inhabitants, that is the population, is constantly changing. Also new dwelling accommodations are being continuously provided. The rates of these changes are never exactly synchronized, with the result that from this, and for other reasons, every community, and it is true also of districts within the community itself, is constantly going through a cycle where one stage offers more living accommodations than there are people to fill them (surplus), and later the opposite stage where more people are seeking living quarters than are available (shortage).

It is the exception, and not the rule, for any apartment building, in fact for any multiple tenancy income property, to operate through any material period of time with its space 100% rented. The actual percentage varies widely, but for a properly designed, well located building asking fair rentals, 90% occupied (10% vacancies) is generally considered a fair normal operating average.

Vacancies do not always come from oversupply, nor full buildings from shortage. Insistence upon rents that are above the true rental value of the space offered will tend to prevent normal occupancy while the establishment of rents below this value will oftentimes keep a building fully occupied in spite of many other adverse circumstances.

Well planned, well constructed buildings bring better and more permanent rents. Older buildings, well maintained, will hold tenants against some of the newer, cheaply built, poorly managed properties. People like to live in a building with an attractive exterior. It touches their pride, even though they be only a tenant. Convenience, provided by the relative position of the various rooms, large closet space, well planned kitchens, attractive bathrooms, ample wall plugs properly placed, swing valves in sinks, and a myriad of other things, both large and small, all influence both the amount of rent obtainable and the ability of the building to compete for and hold tenants.

A bathroom today is a necessity for all, but tile wainscoting and enclosed showers in the modest frame cottage are luxuries, while in the modern city apartment they are necessities. A roll composition roof surface may be efficient and satisfactory for the cheap bungalow; but, while

its efficiency is no less, it is entirely inconsistent with an elaborate home or apartment building. Obsolete features such as lighting fixtures, exposed lead plumbing, dark bathrooms, or characteristics which are old fashioned such as extremely heavy mouldings and trim, excessive ornamentation and mill work, some types of mantels and the like, although built of the very best of materials and shaped by craftsmen who are unobtainable today, are, nevertheless, more apt to be negative in their contribution to value than positive.

Common black screens serve the purpose as well as bronze metal, or copper but they do not have the useful life; a similar comparison exists between brass and iron piping. Such items increase the physical life, make the property more permanent and more desirable. Also, in that their advantages are now recognized by the public generally, they increase marketability and, therefore, value.

All of the various characteristics of the property should be suitable and consistent with all other characteristics, both internal and external. They should be suited to the neighborhood, to the general territory, and to the city itself. Flat low land adjacent to a railroad is not suited to residential purposes, while it might be suited to industrial use.

In some locations one bath to several bedrooms is sufficient, but in the highest priced properties there must be a bath for each chamber, and some extra accommodations. That property which contains all of the newer, more popular and more efficient equipment, will enjoy a very strong demand even when other properties less modern and less well designed are suffering severely from vacancies and lack of demand.

The character and class of the occupancy both at present and in the future are material and determining factors. A territory might be populated by a poorer class, or close to conditions, industrial or otherwise, so that the probable occupancy of the property will be of that same class. We must recognize the customs, habits, and characteristics of various strata of society and races of peoples.

There are improvements built in certain localities where the people either interested or able to own or rent them, are not present in sufficient numbers to create enough of competitive demand to develop the full, or even an approximation of the cost of the property. To take an extreme example—if we should erect a typical Park Avenue apartment on the lower East side there would be no tenants available at a rental of $800 or $1000 per room. In fact the rentals would have to be reduced to such an extent that this elaborate building would develop little if any more real value than the much less expensive types of buildings which are now standing in that section.

We determine our apartment rental value by the characteristics of the people available as tenants; by the probable conditions in the future as to surplus and shortage of the particular type of accommodations; by the hazard to the income of the building from an impending or possible surplus; by the extent to which it offers prospective tenants the most modern and ideal living conditions; by the general wealth and financial ability of people interested in the particular district, and by the probable influence of existing or possible competitive buildings. This rental should be that which will keep the building occu-

pied always to the normal 90% or better through all of the changing conditions that can be reasonably foreseen or anticipated over a considerable period in the future.

I am sorry that we must now leave this most interesting question and call the gross rental value of our hypothetical building $70,000.

If the actual rents being received exceed this rental value, then there is a hazard of diminution which may become effective at any time and reduce the actual rent to or even below the rental value. If, however, the actual rents are maintained below the rental value, the tenancy will probably be permanent and the income very stable and for that reason a more valuable income.

Gross income, per se, is not the real criterion, for out of this must be paid all operating, taxes, maintenance and such expenses. The expense deduction is determined both by actual experience records, or by percentages developed from records of similar buildings. Expenses are influenced by the type of building, its use, the type of tenancy, the extent of service to tenants, wage scales, the operating efficiency of the building as a whole, the mechanical efficiency of boilers, elevators, etc., and the quality of construction as it affects the maintenance effort and expense necessary.

These expenses do not include capital charges such as mortgage amortization and interest, depreciation reserves, and the like. Our expense deduction must not be based upon a particularly favorable year nor an unfavorable year, but upon average performance projected as accurately as possible into the future.

From the gross of $70,000 we deduct expenses $28,000, and have a net balance to be expected upon capital investment of $42,000.

At the moment we are seeking the investment value of a property consisting of one portion which will probably maintain or increase its worth, that is, the land, and another portion which is a wasting asset, the buildings. Buildings lose earning value by physical depreciation, that is, actual wearing out and exhaustion and by obsolescence. Obsolescence results from inventions of new equipment and new design. Buildings continue to have entirely sufficient physical strength long after their economic life has ended—witness the old Knickerbocker Hotel on 42nd Street converted to an office building while yet a comparatively new building. The old Waldorf-Astoria was not a dangerous building by any means but it has outlived its usefulness and is being taken down to make way for a tall office building.

Our judgment is that the building we are discussing has a further economic life of thirty years, at which time it must be replaced by a new building suited to the then conditions of the site and the intermediate developments in building design and equipment. After that period of time we will have a property consisting of a plot of land and a useless building. So much of our original investment as was originally allocated to building then must be repaid to us out of income within the thirty year period.

To replace this investment in building we compute the sum necessary to be set aside each year for thirty years, which, when invested at a conservative rate of return, will aggregate the amount allocated to the building. This sinking fund payment is an annual deduction from net income and at the end of the thirty years pro-

vides a fund which restores the original investment in the building. Five thousand seven hundred dollars set aside each year for thirty years and carefully invested, will repay the $270,000 allocated to the building.

Few owners actually set aside this sinking fund payment but it is the only logical thing to do to provide replacement of capital invested in an asset which is constantly diminishing.

Through the procedure outlined, the mass of land, brick and mortar has been translated into a net annual income of $42,000—and the final step remains, namely, to establish the present worth of this net amount each year.

Several evenings such as this could be given to this part of the subject alone. It will be necessary to brush aside many important details and refinements and touch only the simple underlying thoughts.

If we have a little extra money we may pay $100 for a U. S. government bond paying, say, $4.00 per year. Or we may pay $100 for a railroad bond, paying $5.00 per year. Or we may gamble $100 with a group of friends in some new untried venture but this must give promise of eventually paying $20.00—yes, even $100.00—per year. In the above we are in effect valuing the different types of income, giving subconscious consideration to the security of the principal, the certainty and regularity of income and other features. On the basis of these assumed figures, we have set the U. S. bond as a 4% investment, the railroad bond as a 5% investment and the new venture as a 20% to 100% investment. The latter is really a speculation. In this connection we must think in terms of the long investment swings and not follow such rapidly fluctuating items as call money, short time money or even the rates on the short time government borrowings.

Putting this same statement in other words and equivalent figures, we reduce these examples to the price paid in each case for the promise to pay these annual dividends or interest. We regard the promise of the government to pay us $1.00 each year worth $25.00; that of the railroad worth $20.00; and that of our friends' venture not very much, from $1.00 to $5.00. By comparison to that which we will pay the government, how much are we justified in paying for the promise and probability of receiving each $1.00 of net income per year from this particular piece of property? That is to say, what is the present worth of $1.00 per annum from this building. Given the present worth of $1.00 per annum, then the present worth of $42,000 per annum is 42,000 times that amount. We have already assumed this to be a 10% investment—that is, the present value of each $1.00 per annum of this net income is $10.00.

In order to have a base upon which to judge the values of income, we must understand that which would be the perfect investment and compare the investment being appraised to that. The ideal investment provides: first, absolute security of principal; second, ability to liquidate the full principal amount promptly, at any time; third, certain and regular income; fourth, a minimum of effort to collect that income. The U. S. government bond probably more closely approximates this ideal investment than any other security available in this country, and forms our general basis for comparison.

The value of any income depends upon the character of the investment and is expressed in units known as

present worth (the British term is year's purchase), or by its reciprocal, the capitalization rate.

To the extent that any given investment fails to meet the requirements of the above described ideal, the income from that investment is proportionately less valuable. As the value of the income lessens, the rate of capitalization is expressed by a proportionately larger figure.

An investment in a fee simple estate under a 99-year lease gives greater security of principal than can be obtained from the small outlying frame store. The income to this fee from the ground rent is paid by one tenant; is secured by a large tenant estate in the form of a large office building; is certain, regular and is collected without effort. The worries of management, difficulties in keeping happy tenants, collecting rents, the hazard of vacancies, all of these belong to the lessee, and each dollar of his income is less valuable for these reasons. Furthermore, the entire estate of the lessee is always open to the hazard of absolute extinction by failure to pay ground rent or to perform other covenants of the lease. Under such conditions the building reverts to the fee simple estate without investment expense to it. You may say this hazard is not great; practically speaking, it is not a hazard but a potentiality. There is, however, a sufficient difference between these two estates to make the ground rent an income to be capitalized at from 5% to 6%, while the lessee's income can be capitalized at only from 7% to 10%.

Following this line of reasoning, but including many refinements which cannot be taken up here, it is determined that the net income of our hypothetical building is a 10% income, that is to say, the $42,000 average net annual rent is 10% on $420,000. This in turn is the investment, or income, value of the property. In setting 10% as the capitalization rate of this income, there is given to the investor a sufficient return to provide for the sinking fund payments referred to above. A refinement and a more accurate computation would deduct the $5,700 annual sinking fund from the $42,000 net income and use a different rate of capitalization for the $36,300 net thus attained.

The next step in completing an appraisal, is the computation of the physical valuation. This, as I have briefly explained earlier, is done by computing land value and building value. The physical value so found must harmonize with the income value.

I am sorry time will not permit a more thorough discussion of the physical method. It is an intensely interesting and highly important part of any valuation, but to do this at all properly would require as much more time as you have already so kindly and courteously given me.